

REMARKS

Status of the Claims

Claims 1 to 7 as filed are currently pending. In the present Response, claim 2 is cancelled; claims 1, 5, and 7 are amended; and new claims 8 to 11 are added. Thus, after entry of these amendments, claims 1 and 3 to 11 are presented for consideration.

Outstanding Rejections to the Claims

Pursuant to the Office Action, claims 2 and 5 are rejected under 35 U.S.C. §112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 1-7 are rejected under 35 U.S.C. §102 for allegedly being anticipated by U.S. Patent No. 5,807,522 to Brown *et al.* (hereinafter "Brown"). Applicants respectfully traverse all outstanding objections to the specification and rejections of the claims.

Support for the Claim Amendments

Support for the amendment to claims 1 and 7 can be found throughout the application, in particular, support can be found, *inter alia*, at paragraph 33, beginning on page 10. Support for the amendment to claim 5 can be found, *inter alia*, on Figures 6B and 6C. Support for new claims 8-10 reciting the claimed invention with more particularity can be found, *inter alia*, at paragraph 33, beginning at page 10, and Figures 6B-6D. Accordingly, Applicants submit that no new material has been added herewith.

Issues under 35 U.S.C. §112, second paragraph

Claims 2 and 5 are rejected under 35 U.S.C. §112, second paragraph, for allegedly being indefinite.

Claim 2 is alleged to be indefinite for being unclear what structural limitations of the spotting pin are being described. Applicants have cancelled claim 2, without prejudice.

Claim 5 is alleged to be indefinite for reciting "radially-shaped groove" because it is unclear how "radially" defines the shape of the groove. Applicants have amended the phrase from "radially-shaped" to "radially-extended" to clarify the scope of the claim. Applicants respectfully submit that, according to Webster's II New Riverside Dictionary, (Houghton Mifflin

Company, 1996), one of the definitions of "radial" is "of or arranged like rays or radii." Thus, the groove(s) of one embodiment of the claimed invention radiates from the center of the pin tip like spokes of a wheel (see, *e.g.*, Figures 6B and 6C of the specification), *i.e.*, the grooves are shaped to run perpendicular to the central axis of the pin, thus creating a radial pattern from an end view of the pin tip. Applicants submit that one of ordinary skill in the art would understand the meaning of the term, as the Examiner had done (see, page 4, lines 23-24, of the Office Action).

In light of the reasons and amendments set forth above, Applicants respectfully submit that the rejection of claims 2 and 5 under 35 U.S.C. §112, second paragraph, have been obviated and respectfully request withdrawal of the rejection and passage of claim 5 to allowance.

Issues under 35 U.S.C. §102

Claims 1-7 are rejected under 35 U.S.C. §102(b) for allegedly being anticipated by Brown.

The legal standard for anticipation under 35 U.S.C. §102 is one of strict identity. To anticipate a claim, a single prior source must contain each and every limitation of the claimed invention.

Applicants have amended claim 1 to more particularly describe the claimed invention. Amended claim 1 is directed to a pin having a solid member wherein the member has a recessed tip.

Brown discloses a capillary dispenser having an elongate capillary channel. The channel is preferably formed by a pair of spaced-apart tapered elements. On column 7, lines 6-9, of Brown, it is taught that the elongate members taper toward one another and converge at a tip or tip region at the lower end of the channel. Thus, the Brown dispenser has an elongate channel for holding a solution that extends beyond the tip or tip region. One of the advantages provided by the elongate channel of the Brown dispenser is that it retains sufficient sample in the open capillary reservoir for the printing of numerous arrays, see, column 9, lines 19-29.

In contrast to the Brown capillary dispenser with its elongate capillary channel, Applicants' claimed invention is a pin with a solid member having at least one recess in the tip of the solid member. In the Webster's Dictionary, one of the definitions for "recess" is

“indentation.” Thus, Applicants’ claimed invention does not have a “channel” that extends beyond the tip region as Brown’s does. Moreover, unlike the Brown dispenser, Applicants’ claimed invention, does not function as a capillary reservoir to retain a sufficient amount of a reagent to print numerous arrays. Instead, Applicants’ claimed invention is a pin having a solid member with at least one recess for spotting reagents onto a slide.

In fact, Brown teaches away from Applicants’ claimed invention as it seeks to overcome what Brown describes as a limitation of the prior art, “the number of arrays that can be made with each dipping is usually quite small,” (see, column 2, lines 4-7). Brown’s disclosure is directed to a dispensing device having an elongate channel that retains enough sample to print numerous arrays. Accordingly, Brown would not and does not teach a pin having a solid member and a recessed tip as in Applicants’ claimed invention. Thus, Applicants submit Brown does not anticipate claim 1. Similarly, Brown also does not anticipate claims 2-6, which depend from and incorporate all the limitations of claim 1. Neither does Brown anticipate claim 7 as it also recites a pin having a solid member and at least one recess in the tip.

In light of the foregoing reasons, Applicants respectfully submit that Brown does not teach all the limitations of claims 1 and 3 to 7 and, therefore, cannot anticipate them. Applicants respectfully request withdrawal of the rejection based upon 35 U.S.C. §102(b).

CONCLUSION

In view of the foregoing amendment and remarks, it is believed that the Examiner can properly withdraw the rejection of the pending claims under 35 U.S.C. §112, second paragraph and 35 U.S.C. §102. Applicants believe that after entry of the instant amendment all claims pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If necessary, please apply additional and necessary charges, and apply all credits, to Deposit Account No. 06-1050.

Applicant : Itoh, et al.
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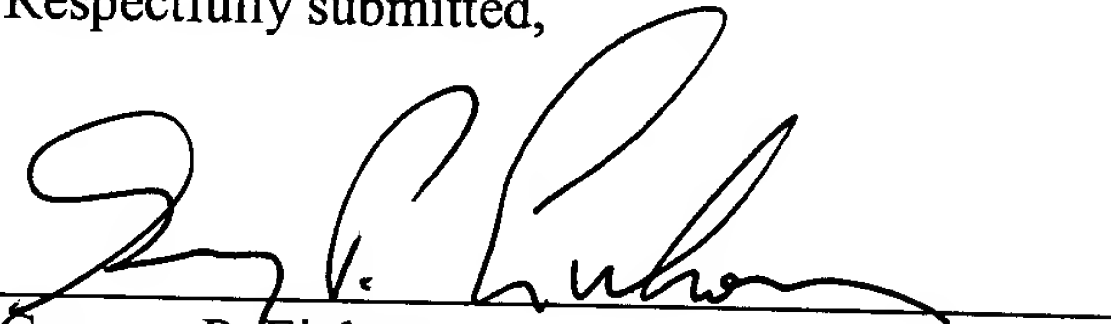
Attorney's Dock #: 13452-011001 / PH-709US

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (858) 678-5070.

Respectfully submitted,

Date:

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Version with markings to show changes made

In the claims:

Claim 2 has been canceled, without prejudice.

Claims 1, 5, and 7 have been amended as follows:

1. (Amended) A spotting pin used for spotting a reagent on a plate, which comprises a solid member, wherein [a tip of the pin comprises] the solid member has at least one recess at a tip thereof.

5. (Amended) The spotting pin of claim 1, wherein the recess comprises a [radially-shaped] radially-extended groove.

7. (Amended) A device for producing a biochip comprising probes spotted on a plate, said device comprising a solid spotting pin having a tip wherein the tip comprises at least one recess.

The following new claims have been added:

-- 8. (NEW) The spotting pin of claim 1, wherein the solid member comprises a concave tip with a cross-shaped groove.

9. (NEW) The spotting pin of claim 1, wherein the solid member comprises a flat tip with a cross-shaped groove.

10. (NEW) The spotting pin of claim 9, wherein the recess comprises two V-shaped notches crossing each other. --